NAME OF INDIVIDUAL INVESTIGATOR AND INSTITUTION

APPLYING FOR GRANTS FROM TIRC

No.	Investigator	Institution	Subject	Amount	Date	Disposition
1	WILEY, Richard H., Prof. & Chairman, Chemistry Dept.	University of Louisville, Belknap Campus	Reformation of the nicotine molecule.	60,320	6/14	
2	SEGAL, Maurice S. M.D., Dir. Dept. of Inhalational Therapy, Boston City Hospital	Tufts College Medical School - Boston City Hospital	Effects of cigarette smoking on normal subjects.	22,000	6/19	
3	WASE, A. W., Ph.D., Asst. Prof. of Biological Chemistry	Hahnemann Medical College & Hospital of Philadelphia	Biochemistry of Pulmonary tissue as influenced by tobacco smoke.	7,100	6/16	
4	WENDER, Simon H., Res. Prof. of Chemistry	University of Oklahoma Research Institute	A qualitative & quantitative study of the individual polyphenol content of cigarette tobacco & of the cigarette smoke, & also to study the fate of these compounds in the animal respiratory system.	12,400	6/14	
5	COBE, Dr. Herbert M., Prof. Microbiology & Bacteriology	Temple University	The effect of tobacco & other constituents (chemical compounds) on the bacterial flora of the oral cavity & the respiratory passages.	12,200	6/16	
6	SALTMAN, Paul D., Ph.D., Assistant Professor	University of Southern California	The enzymatic mechanism for the dark fixation of CO_2 by tobacco.	7,776	6/26	
7	GRIFFIN, Dr. A. Clark, Associate Professor of Biochemistry	Stanford University Chemistry Dept.	The effect of exposure to cigarette smoke on the induction of cancer by chemical compounds.	5,960	6/21	
8	MANN, Dr. David E., Associate Prof. of Pharmacology	Temple University School of Pharmacy	Effect of tobacco smoke and tobacco residues on methylcholanthrene-induced skin carcinogenesis in mice.	5,500	6/24	
9	GOODSON, Louis H., Ph.D., Sr. Research Chemist	Midwest Research Institute	Study of lung tissue changes produced by air pollutants including tobacco smoke.	47,000	7/2	

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10	AYRE, J. Ernest, M.D., Director	The Cancer Institute at Miami	The systematic study of possible carcinogens in cigarette paper tar.	21,000	7/2	
11	FITZGERALD, Dr. P. J., Prof. & Executive Head	State University of N. Y. College of Medicine	A study of the incidence of carcinoma In Situ of the lung in autopsies of males over 30 years of age.	7,625	7/7	
12	FREEDLANDER, B. L., M.D., Director of Cancer Research	Mt. Zion Hospital	The proposed research on experimental mouse cancer may be divided into the following three projects: (are divided on application blank)	8,900	7/7 10/9 (amended app.)	
13	HOLDEN, Dr. Frances R., Senior Physical Chemist	Stanford Research Institute	The physico-physiological properties of tobacco smoke.	78,600	7/21	
14	MOTLEY, Hurley Lee, M.D., Prof. of Medicine	University of Southern California School of Medicine	A study of the effects of smoking on pulmonary function.	31,000	8/4	
15	WOERNER, Charles Arthur, Ph.D., M.D., Asso. Prof. of Anatomy	University of Louisville, School of Medicine	A study of the effect of Tobacco tars and extracts on the arteries of experimental animals.	9,900	8/2	
16	WELLER, Russell W., M.D., Associate Prof. of Pathology	Hahnemann Medical College & Hospital of Phila.	A postmortim study of the bronchi, lungs and heart correlated with inhaled substances related to occupation, residence and smoking.	8,181	8/2	
17	BAILEY, Paul C., Professor of Biology	Alabama College	A study of the effects of tobacco smoke upon growth and cell division in: a. root tips of Trillium sessile I. and b. the chick embryo	1,600	8/4	
18	LOBSTEIN, Otto E., Director of Research	Chem-Tech Laboratories	The effect of enzymes on the growth of lymphosarcoma. 1. The role of lysozyme 11. The role of other enzymes, proteolytic, mucolytic, and others.	7,500	8/6	

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20	STARE, Fredrick J., Ph.D., Prof. of Nutrition	Harvard School of Public Health, Dept. of Nutrition	Experimental studies on cancer utilizing a new technique to see if various tars extracted from tobacco may incite the formation of lung tumors.	13,613	8/12	
21	JACOBS, William Lee	Independent Investigator	(briefly) To show the relationship of lung irritation and cancer to the use of lighting agents.	5,700	8/11	
22	LIKES, Dr. Carl J., Project Supervisor	Virginia Institute for Scientific Research	Metabolism and Catabolism of leaf proteins in tobacco (Nicotiana tabacum.)	15,500	8/18	
23	GROSSE, Dr. A. V., Dir. of Project	Research Institute of Temple University	Research on the chemistry of cigarette smoking which should provide new information regarding the effect on health of cigarette smoking and possible improvements in the composition of cigarettes if, shown to be necessary.	82,250 (2 yrs.)	8/22	
24	HAAG, H. B., M.D., Prof. of Research Pharmacology	Medical College of Virginia	Preparation for publication of a book on the biologic aspects of tobacco and its smoke.	33,990	8/25	
25	HAWTHORNE, Herbert. R., M.D., Chairman, Prof. of Surgery	University of Pennsylvania, Dept. of Surgery, Grad. School of Medicine	The production of induced pulmonary neoplasms in experimental animals by exposure of the Tracheo-bronchial system to tobacco smoke.	36,300	8/27	
26	SHULMAN, Maurice H., Principal Investigator	Boston University, Dept. of Biology, Graduate School	Direct observations on blood vessels during exposure to the constituents of cigarette and pipe smoke.	45,028	9/9	

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28	MOORE, George, E., M.D., Ph.D.	Roswell Park Memorial Institute	An investigation of the physiological effects of direct inhalation of tobacco smoke by laboratory animals and the study of the biological response of laboratory animals to continuous ingestion of diet-tobacco product mixtures.	30,542.40	10/1	
29	HOMBURGER, F. M.D., Director	Tufts College Medical School, Dept. of Surgery	Effects of various components of tobacco and cigarette paper upon the behavior of transplantable tumors in various species including the behavior of human tumors transplanted into animals.	126,630	8/23	
30	SCHEPERS, G. W. H., M.D., D.Sc., Director	The Saranac Laboratory	Environmental Pulmonary Carcinogenesis. The co-carcinogenic potentialities of inhaled tobacco smoke in relation to beryllium-provoked lung cancer of the rat.	49,356	10/4	
31	CLARKE, Hans T., Professor of Biochemistry	Columbia University, College of Physicians and Surgeons	Biochemistry of White Blood Cells. 1. Proteolytic activities of the white blood cells of man and the effect on white blood cell activities of carcinogens, nutrition, and other influences.	19,958	10/8	
32	CERECEDO, Leopold R., Professor of Biochemistry	Fordham University	A study of early chemical changes in the lungs of tumor-bearing rats and mice.	8,360	10/7	
33	SULZBERGER, Marion B. Prof. & Chairman, Dept. of Dermatology & Syphilology, N.Y.U. Post-Graduate Med. School & Dir., N. Y. Skin Cancer Unit	New York University, Bellevue Medical Center	Investigation of the effects of tobacco on the human vascular system in living volunteers; and in particular of the possibility that certain tobacco effects are based on peculiar allergic susceptibility of specific individuals rather than upon obligatorily toxic products in tobacco smoke.	15,000 (per annum)	11/8	

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34	McLAUGHLIN, John T., M.D., Dir. of Biophysics Research	Institute of Nuclear and Atomic Sciences	Analysis of tobacco for radioactivity...a qualitative determination by means of mass spectroscopy. A preliminary survey to determine the feasibility, mechanics and cost of such analyses.	2,139.50	10/12	
35	IUISADA, Aldo A., M.D., Director	The Chicago Medical School, Div. of Cardiology	Action of products of combustion of tobacco leaves on the circulation.	10,340	10/13	
36	WOLFF, William A., A.M., Ph.D., Associate Prof. of Clinical Chemistry & Toxicology	Bowman Gray School of Medicine	Project A: The Fate of Tars from Cigarette Smoke Deposited in the Dog Lung - Project B: Cigarette Smoke in the Human Lung, A Radioisotope Study	25,000	10/11	
37	REVICI, Emanuel, M.D., Scientific Director	Institute of Applied Biology	To determine whether tobacco smoke produces the nonspecific, abnormal metabolic pattern found by us in susceptible animals and humans, which may influence the evolution of pre-cancerous or non-invasive cancer cells or other abnormal tissues.	12,000	10/22	
38	GOLDSTEIN, Dr. Jacob, Associate, Workshop in Sociological Res. Techniques, Grad. Faculty	New School for Social Research	An exploratory study of personality correlates of cigarette smoking among males in the 40-and-above age group.	23,500	10/29	
39	VOUGHT, Robert L., M.D., Associate Prof. of Epidemiology	Columbia University, School of Public Health	The Design for a Long Term Study of Hypertension.	25,322	11/1	
40	BENHAM, G. H., Supervisor, Biochemistry Section	Armour Research Foundation	Does tobacco smoke elicit a stress reaction?	20,000	11/2	

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41	BORDENCA, Dr. Carl, Asst. Head, Organic Division	Southern Research Institute	The study of preferential combustion or oxidation of cigarette components during smoking.	36,000	11/8	
42	HEATH, Clark W., M. D.	Harvard University, Department of Hygiene	Personality and smoking in college graduates: a fifteen-year follow-up study.	15,880	12/10	
43	WILSON, Robert C., Associate Professor & SQUIER, Leslie H., Instructor	Reed College, Psychology Department	A study of the relationships between personality patterns, smoking behaviors and lung cancer, cancer, and heart diseases.	41,712	11/15	
44	KOTIN, Paul, M. D., Assistant Professor of Pathology	University of Southern California Medical School	The experimental production of carcinogenic hydrocarbons in simulated cigarette smoking.	7,560	11/12	
45	ABRAMS, Arnold, Ph.D., Research Scientist (Psychology)	Syracuse University Research Institute, Psychology Department	An epidemiological study of lung cancer and its relationship to certain socio-psychological factors.	96,500	11/19	
46	WAGNER, Bernard M., M. D.	Hahnemann Medical College & Hospital	Relationship of tobacco products to vascular disease.	12,420	11/25	
47	PICKEL, Frank D., Ph.D.	Evans Research and Development Corp.	Chemical studies of tobacco, tobacco additives and cigarette smoke.	30,125	11/26	
48	SIEGEL, Arthur I., Dr., Director	Applied Psychological Services	The need for the proposed series of investications into the effects of tobacco on various sensory & motor processes is partially summarized in the recent Tufts College Handbook of Human Engineering Data which states, "although tobacco is frequently cited as a possible contributory factor in numerous medical disorders of the sensory processes, the literature is practically devoid of objective studies on the influence of tobacco alone on the sensory mechanisms of normal individuals. Research in this area is greatly needed." (emphasis ours)	12,180	11/30	

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49	KNUDTSON, Kenneth P., Clinical Assistant Professor of Pathology	University of Washington, Medical School	A pathologic and topographic study of bronchial mucosa with special reference to the relationship of squamous metaplasia, atypical epithelial proliferation and bronchogenic carcinoma in smokers and non-smokers.	5,400	12/5	
50	PATHOLOGIC-ANATOMIC SURVEY	A number of institutions	Pathologic-Anatomic study of cellular changes in human bronchi.	55,000		
51	PRATT-THOMAS, H. R., M.D., Professor of Pathology	Medical College of South Carolina	Biological assay of cancer producing factors in cigarette smoke tars.	8,134.50	12/3	
52	MURRAY, William S., Sc.D., Research Associate & Administration Director	Roscoe B. Jackson Memorial Laboratory	The production of genetically controlled animals and tumors for use in experimental research on tobacco in relation of health by (a) the expansion of known inbred stocks and sources of tumor supply; (b) the production of such hybrids or heterozygous types as become necessary.	47,318	12/20	
53	MONTGOMERY, Hugh, M.D., Associate Professor of Medicine	University of Pennsylvania Medical School	Influence of tobacco smoking on the blood flow of skin and of muscles of extremities in sympathectomized and unsympathectomized subjects.	10,667.50	12/22	
54	BARNES, Frederick W., Jr., M.D., Ph.D.	The Johns Hopkins University School of Medicine	The role of hyperplasia in tissue response to chronic damage.	11,000 (per yr. for 3 yrs.)	1/4/55	
55	BARACH, Alvan L., M.D. Clinical Professor of Medicine	Columbia University, College of Physicians & Surgeons	Effect of hypoxia on tumor growth in animals protected by induced hypothyroidism.	17,560	1/7	
56	VOLKER, Joseph F., D.D.S., Ph.D., Dean	University of Alabama, School of Dentistry	The effects of tobacco on selected oral structures.	31,000	1/7	

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57	STALLWORTH, J. Manly, M.D.	Medical College of South Carolina	The effects of cigarette smoke on the peripheral vascular system.	4,104	1/13	
58	HARKAVY, Joseph, M.D.	The Mount Sinai Hospital	Role of tobacco in cardio-vascular disease.	11,625	1/19	
59	COOPER, Philip, M.D., Chief, Surgical Service Dir., Surgical Research Laboratory	Veterans Administration Hospital	A study of the effects of cigarette smoking on levels of gastric acid and pepsin. Effect of smoking on levels of uropepsin will also be investigated.	15,000	1/25	
60	CLINE, Joseph K., Ph.D. Dir., Cancer Dept., Prof. of Experimental Chemistry	Medical College of Alabama	Quantitative study of the composition of tars produced from smoke of tobacco, cigarettes, cigarette paper with and without additives with special reference to carcinogenic hydrocarbons. Carcinogenic and co-carcinogenic effects in mice.	32,940	1/26	
61	MEISELAS, Leonard E. M.D., Clinical Instructor in Medicine	State University of N. Y., College of Medicine at New York City	1. To determine the metabolic pathways of compound E and compound F in the cancer patient, in the patient with heart disease and in the normal. 2. To determine whether Aldosterone is a normal or abnormal metabolic product of E and F. 3. To determine whether the presence of an abnormal functioning liver is related to the production of Aldosterone. 4. To determine whether the presence of an abnormal functioning liver is related to the production of Aldosterone.	12,071	2/14 (revised)	
62	HAFKENSCHIEL, Joseph H., M.D., Director of Cardiopulmonary Unit	Lankenau Hospital	Measurement of coronary blood flow, cardiac work and cardiac oxygen and carbohydrate metabolism in normotensive subjects before and after intravenous nicotine and after smoking standard cigarettes.	21,541 (two years)	1/28	
63	SIMON, David L., Instructor in Medicine	University of Cincinnati	The effects of chewing tobacco on the cardiovascular system of man.	2,800	2/7	

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